

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Applicant(s) : Robert T. Tranquillo et al.  
Application No. : 10/562,955  
Filed : August 3, 2006  
Title : Engineered Blood Vessels  
Examiner : Allison M. Ford  
Art Unit : 1651  
Attorney Docket : 890003-2008.1

**SUBSTANCE OF INTERVIEW**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The following Substance of Interview for the above-identified patent application is submitted in compliance with MPEP § 713.04.

A telephonic interview was held on December 18, 2008 regarding the above-identified matter. In attendance were Examiner Allison M. Ford and Applicants' attorney, Gwen R. Acker Wood. The rejections under 35 U.S.C. §§ 112, second paragraph, 102(b) over Niklason et al. ("Niklason") in light of Hendrickson, and 103(a) over Niklason in light of Hendrickson and in view of Tu et al. were discussed.

With regard to the 35 U.S.C. § 112, second paragraph, rejection, the Examiner stated that it is unclear what factors were contacted with the tubular support. Agreement was reached to amend the claims essentially as follows:

- a) adding one or more factors to the inside of a tubular support, said factors comprised of:
  - i) one or more attractant factors and one or more mitogenic factors;
  - ii) one or more mitoattractant factors and one or more mitogenic factors;

iii) one or more attractant factors and one or more mitoattractant factors; or

iv) one or more attractant factors, one or more mitoattractant factors and one or more mitogenic factors.

With regard to the 35 U.S.C. § 102(b) rejection, method claims 2, 28, 55 and 57 were discussed. The Examiner asserted that the claims as written read on Niklason because SMCs and ECs incorporated in a matrix reads on the SMCs and ECs layered on a scaffold. The Examiner stated that the scaffold is a matrix as defined by Webster's dictionary. To distinguish over Niklason, the Examiner suggested that the method claims need to be amended (if support can be found in the specification) to recite that the SMCs and the ECs are contained in a matrix as a mixed population of cells and that this mixture is applied to a tubular support.

Composition claims 2, 27, 28, 54, 55 and 58 were then discussed. The Examiner stated that composition claims 28 and 54 can be amended the same as method claims 2, 28, 55 and 57 to distinguish over Niklason. However, the Examiner asserted that product by process claim 27 and composition claims 53 and 54 recite an engineered blood vessel that is not distinguishable from Niklason, unless structural differences between Applicants' engineered blood vessel and that of Niklason can be recited.

The factors and how they differ from the cell culture medium disclosed by Niklason were discussed. Attorney Wood stated that nowhere does Niklason disclose using attractant or mitoattractant factors, only a cell culture medium that contains mitogenic factors. The Examiner stated that if it is found that the cell culture medium disclosed by Niklason contains an attractant factor, then it would anticipate the claims. The Examiner said that she would search for a reference(s) that teaches that any one or more of the ingredients contained in Niklason's cell culture would be considered an attractant factor or have attractant factors contained therein, such as FBS.

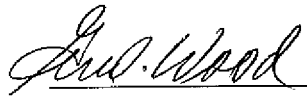
With regard to 35 U.S.C. § 103(a), the Examiner stated that when claims are rejected for anticipation, it follows that they also are considered obvious. The Examiner also stated that she could have rejected only

claims 20 and 46 for obviousness, but the patent office prefers that all claims be included in such a rejection, if all of the other claims also are rejected for anticipation. The Examiner further stated that if the anticipation rejection is overcome, the obviousness rejection will fall.

The Examiner indicated that she would consider Applicants' statements made during the interview and that Applicants should present the arguments in response to the Office Action.

Applicants do not believe that any fees are due with this filing. However, in the event that fees are due, the Commissioner is hereby authorized to charge any additional fees required or to credit any overpayment to Deposit Account 20-0809. The applicant(s) hereby authorizes the Commissioner under 37 C.F.R. §1.136(a)(3) to treat any paper that is filed in this application which requires an extension of time as incorporating a request for such an extension.

Respectfully submitted,



Gwen R. Acker Wood  
Reg. No. 42,582

January 23, 2009

THOMPSON HINE LLP  
10 West Second Street  
2000 Courthouse Plaza, N.E.  
Dayton, Ohio 45402  
(216) 566-8921

11433660.1